

1   **METHOD FOR PREDICTIVE POWER MANAGEMENT FOR OPERATING A DISK**  
2           **DRIVE IN A MOBILE DEVICE TO OPTIMIZE POWER USAGE**

3           **ABSTRACT OF THE DISCLOSURE**

4       The invention may be embodied in a method for operating a disk drive in a mobile device  
5       to optimize power usage. The mobile device may be a hand held computing device such as a  
6       personal digital assistant (PDA) or a mobile terminal such as a cellular telephone. Immediately  
7       after responding to a disk access command, the disk drive is in first operating mode that  
8       consumes a relatively high level of power and may transition to a second operating mode that  
9       consumes a relatively low level of power. A transition from the second operating mode to the  
10      first operating mode consumes a transition quantity of power. A predictive technique tracks a  
11      user's usage pattern and adapts an operating mode transition time based on the usage pattern.

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